

Abstract

The present invention relates to a catalyst for selective hydrogenation of alkynes and dienes, its preparation process and application. The catalyst has an inorganic oxide support, a major active component palladium, and a Group IB metal promoter. The active components are uniformly distributed in the catalyst body within the thickness between the support surface and the depth of more than 300 μm . The catalyst of the present invention has high activity, high selectivity, ability to resist sulfur and arsenic poisoning. The catalyst is particularly applicable to $\text{C}_2\text{-C}_3$ fraction with any concentrations of hydrogen and CO.